



LEADING MEDICINE: **A TOWN HALL CONVERSATION** WITH DR. MARC BOOM

Town Hall Conversation LIII

HOUSTON
MethodistSM
LEADING MEDICINE

Fondren Inflammation Collaborative: IBD Research in the Underwood Center

Christopher Fan, MD

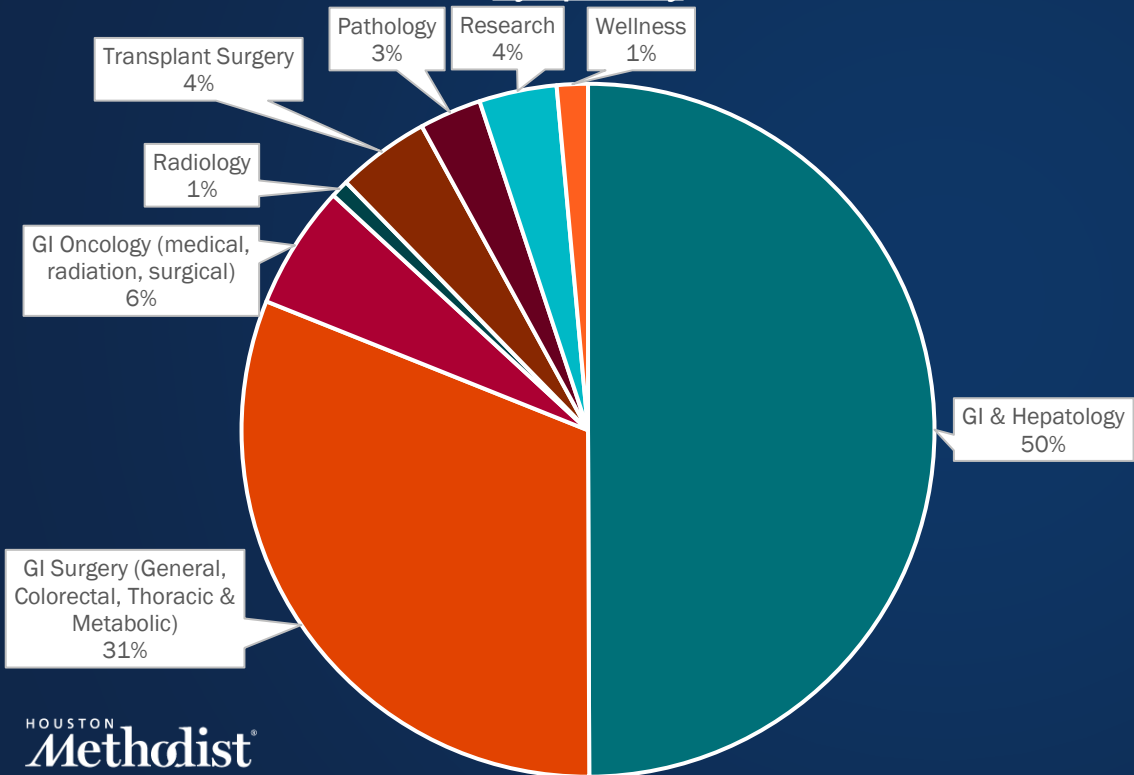
*Assistant Professor of Medicine, Houston Methodist Research Institute
Fondren Centennial Chair in Gastrointestinal Microbiome*

March 26, 2026

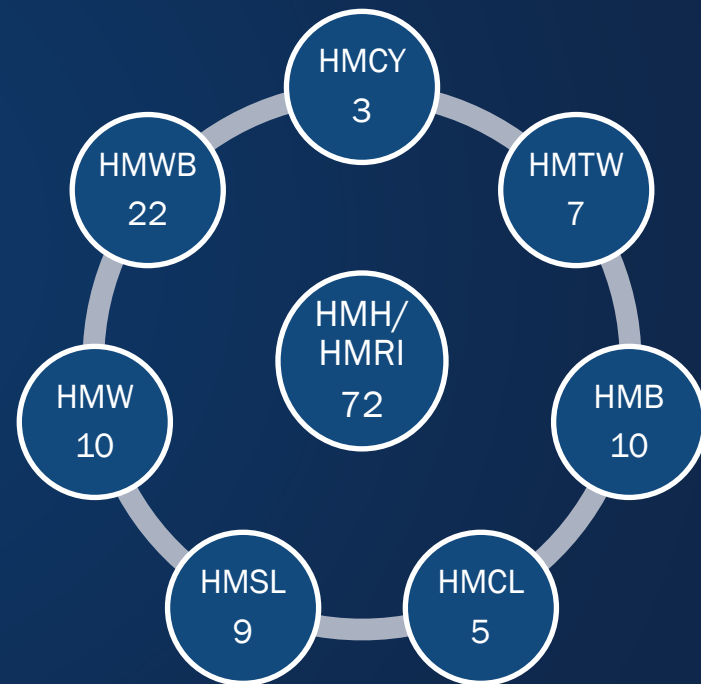
Membership Update

138 Center Members

By Specialty



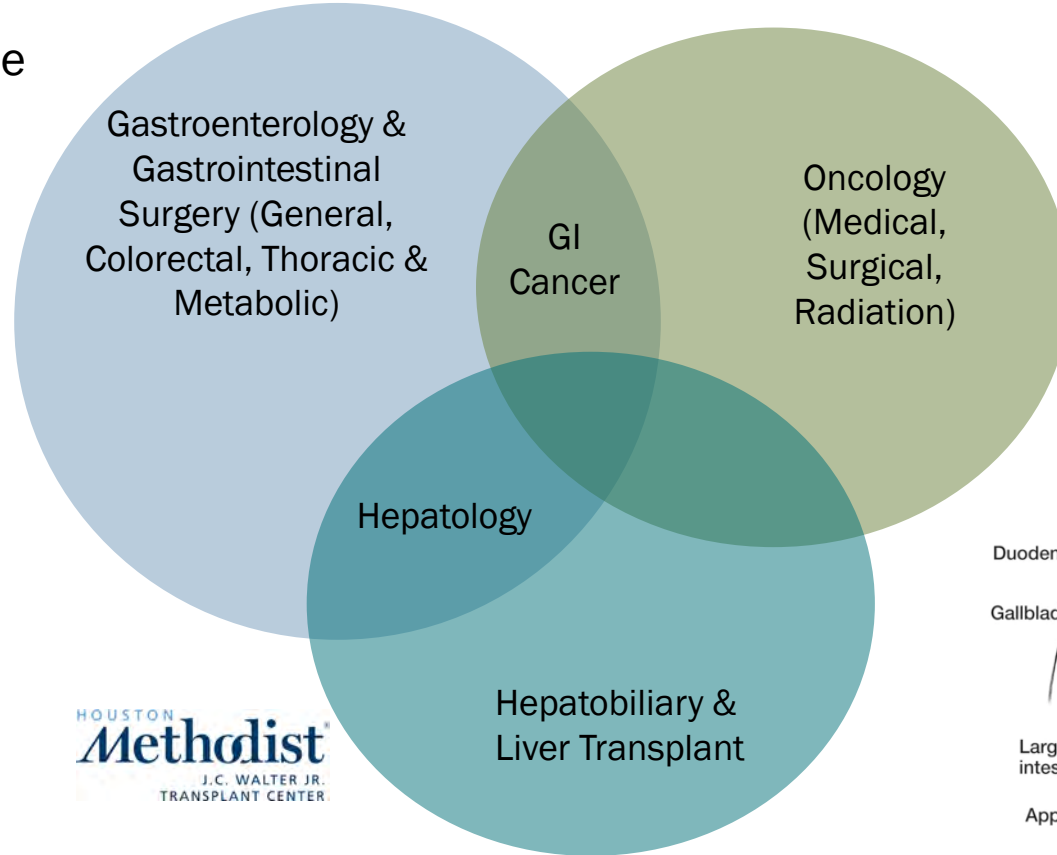
By Primary Location



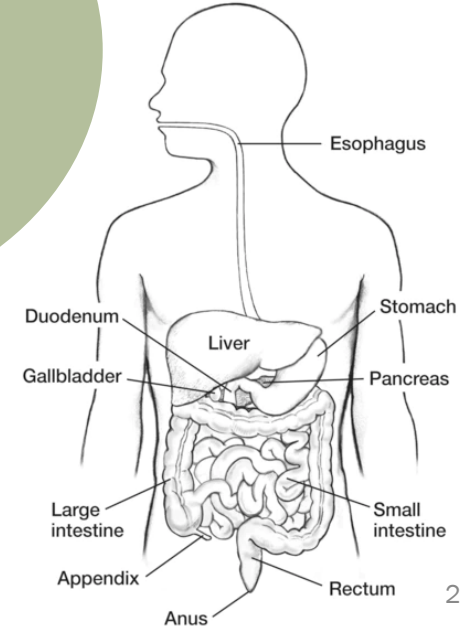
Underwood Center at HMH: Integration of Care for Digestive Disorders

Central Pillars of Underwood

- Clinical Excellence
- Education
- *Research*



HOUSTON
Methodist
NEAL CANCER CENTER



HOUSTON
Methodist
UNDERWOOD CENTER
FOR DIGESTIVE HEALTH

HOUSTON
Methodist
J.C. WALTER JR.
TRANSPLANT CENTER

Fondren Inflammation Collaborative

Gut Health as the Foundation



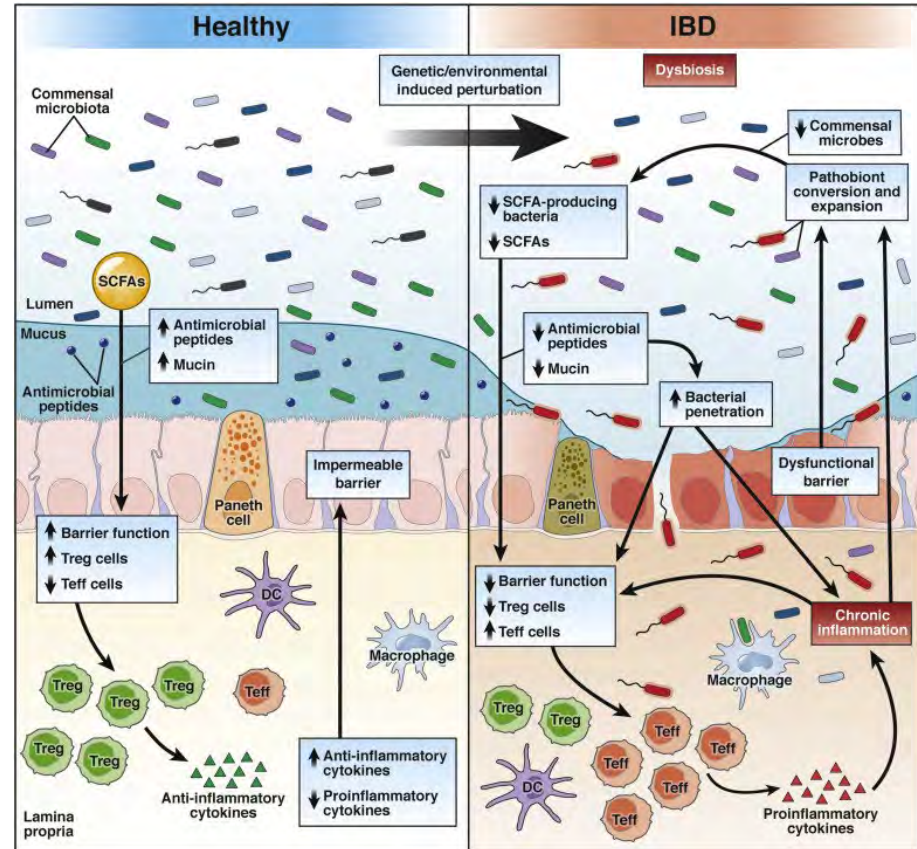
Inflammatory Bowel Disease

- Chronic immune-mediated inflammatory disease of the gastrointestinal tract:
 - Ulcerative Colitis (UC) + Crohn's Disease (CD)
- Clinical heterogeneity likely due to complex pathophysiology which includes factors such as:
 - Altered microbiome
 - Immune dysregulation
 - Diet, environment, metabolites

Microbiome in Inflammatory Bowel Disease

- Increase in facultative anaerobes, decrease in obligate anaerobes with changes in oxygen tension
- Decrease in mucin production and increased barrier dysfunction
- Reduction in short chain fatty acids
- Increase in pathobionts and decrease in symbionts
- Alterations in immune response

All trigger chronic inflammation

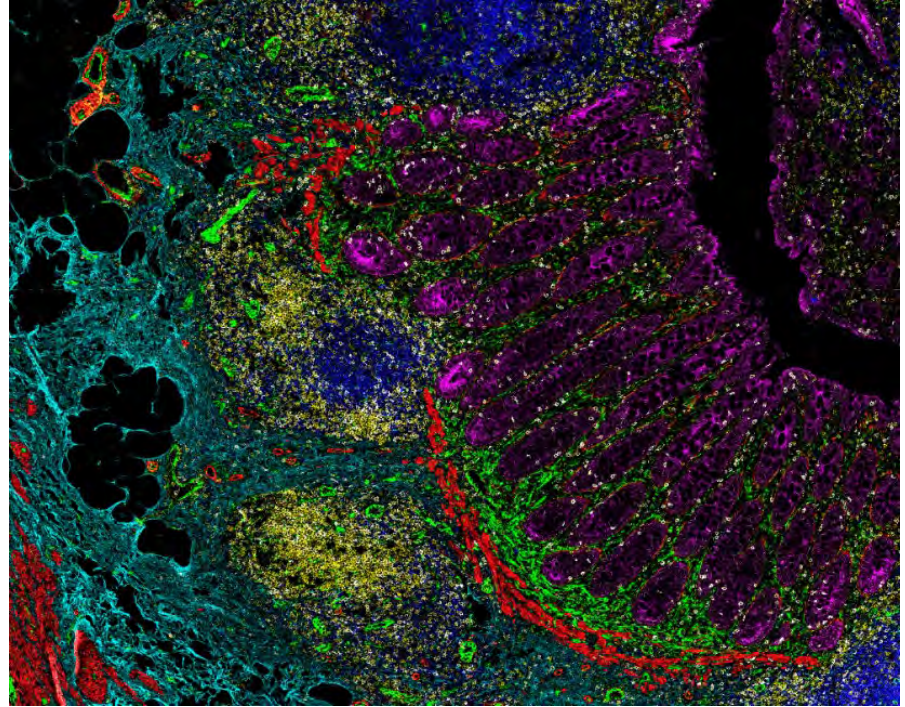


How the microbes crosstalk with the gastrointestinal tract and host

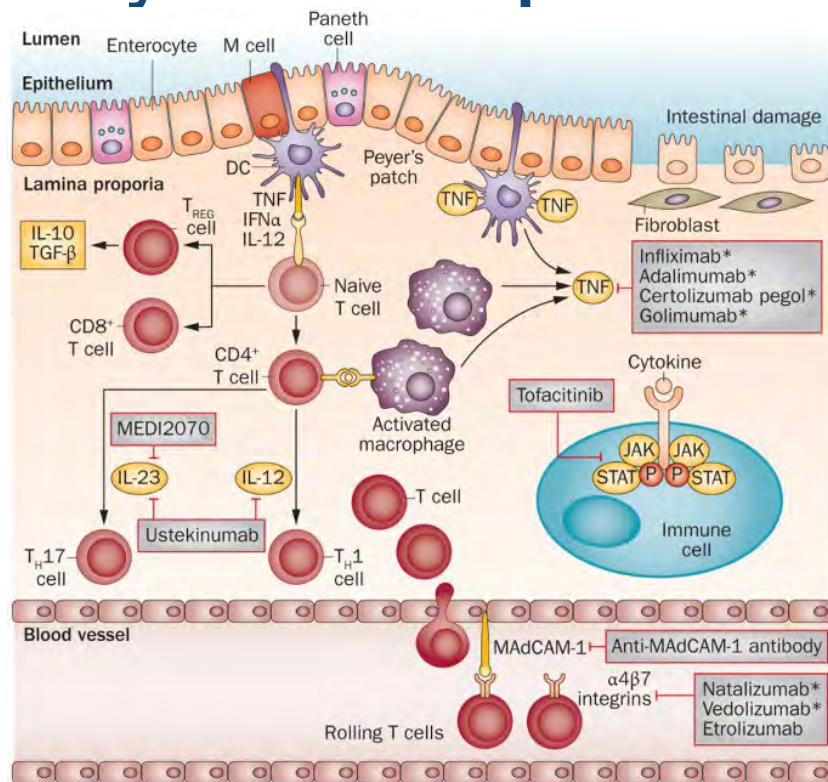
- Bacteria
 - degrade mucin, thinning the barrier
 - produce metabolites that promote systemic immune tolerance
 - produce toxins that increase inflammation and leakiness of gut
 - Metabolize neurotransmitters
 - Conjugate bile acids which have antimicrobial properties

Integrating immune cell spatial organization with function and microbiome

- Using imaging mass cytometry (IMC) to determine host immune and non-immune cell spatial organization
- Spatial microbiome and serum metabolome
- Longitudinally follow patients



Why is this important: Multiple Drugs...



Nature Reviews | Gastroenterology & Hepatology

Danese S et al., Nature Rev Gastr Hep, 2015

- Common host-side targeted pathways:

- Anti-TNF α
- α 4 β 7
- JAK/STAT
- IL-12/IL-23
- S1P

More on the horizon...

Traditional Biomarkers are not perfect

Laboratory Biomarkers

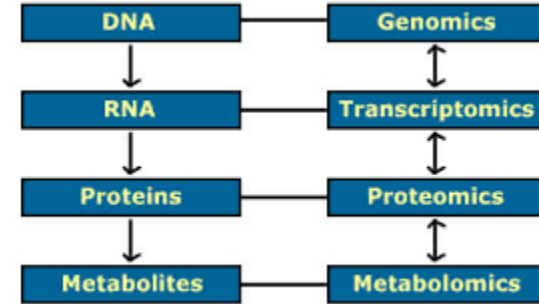
- CRP/ESR
- Fecal calprotectin/lactoferrin

Disease Phenotype

- Montreal Classification
- Rutgeerts Score
- Mayo Score
- Pathological Findings – crypt abscess/distortion/granulomas

Modern Day Advancements

- Modern technology has allowed us to characterize:
 - Genomics Whole Genome Sequencing
 - Exome Whole Exome Sequencing
 - Transcriptome Bulk or single cell RNA sequencing
 - Protein Proteomics
 - Metabolome Metabolomics
 - Microbiome 16S rRNA sequencing



Challenges

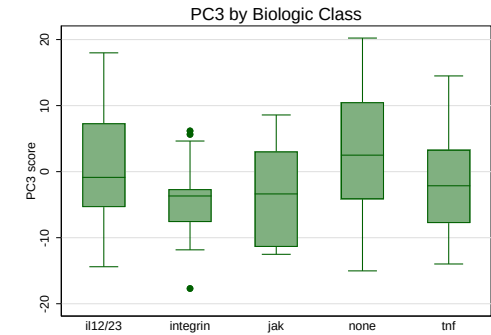
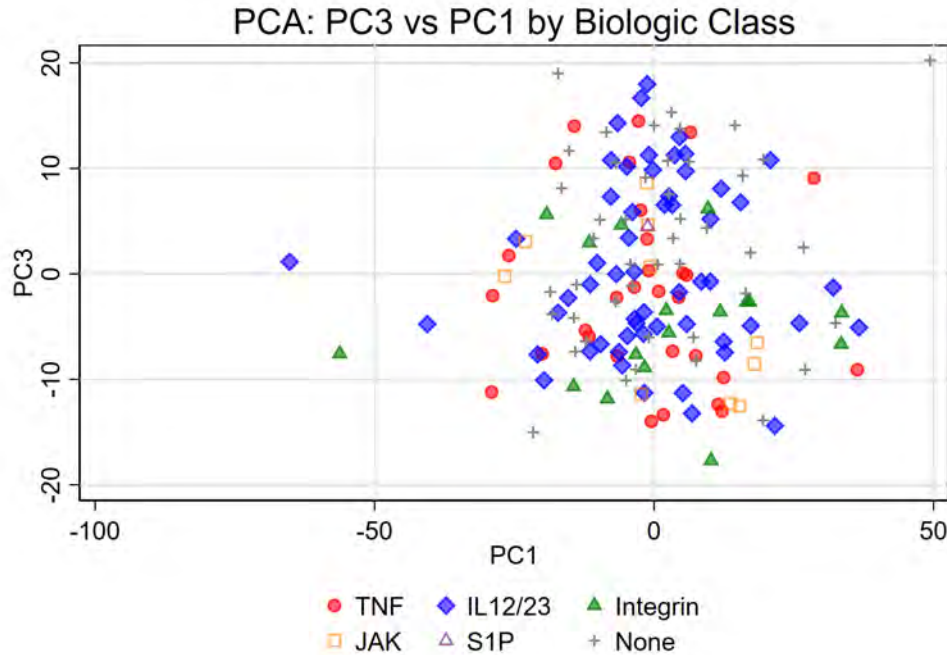
- Big data is often incomplete or sparse, hard to interpret and integrate
- Heterogeneity of patient population
- Longitudinal data has more variation than cross-sectional
- Many of these techniques are hypothesis generating
- Lack of biologic granularity: we know what is present, but we do not know how they functionally interact and their spatial orientation

Enrolling patients in a GI Biorepository

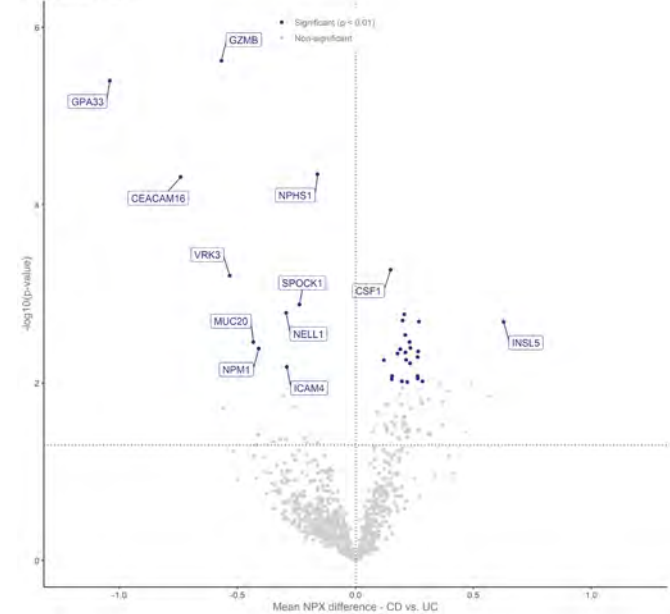
Biorepository Core: Nathan Garcia

- Collecting stool, tissue (small intestine, colonic) and blood samples with assistance from the Biorepository Core
- High throughput sequencing of the gut microbiome (16S shotgun metagenomic sequencing) and metabolome to correlate with immune cell and pathological phenotypes to help optimize disease outcomes
- To date, we have consented over $n = 500$ patients into our biorepository with prospective blood and biopsy collection
 - Plasma/tissue biomarkers for outcome prediction (over 1000 biomarkers in one sample)
 - Culturing out and isolating bacteria from stool – “culturomics”

O-link Proteomic Data



Standard Wilcoxon-tests
All patients (n = 172)

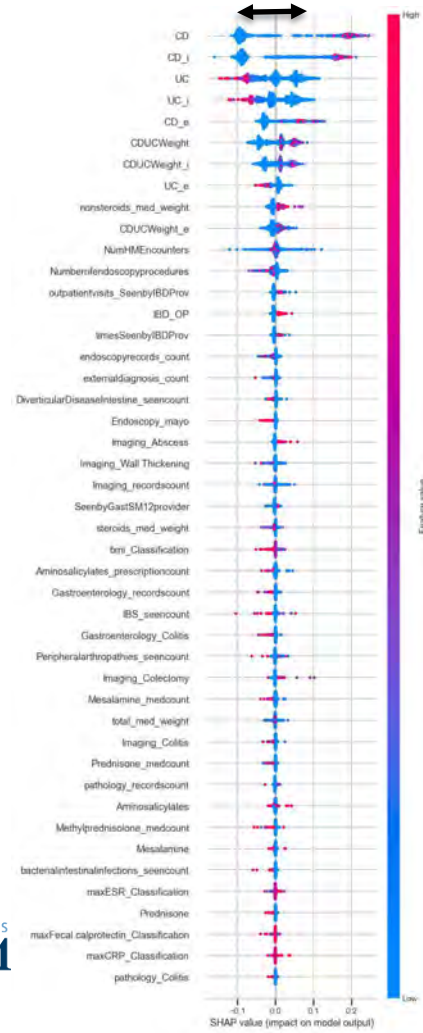


EPIC EMR level data

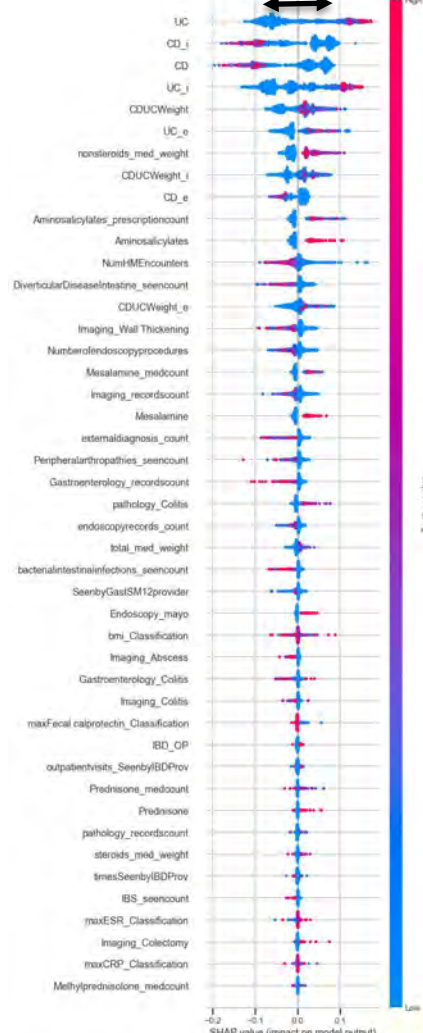


- EPIC electronic medical records allow for large datasets across the Houston Methodist health system to be queried and analyzed
 - Retrospective studies
 - Two abstracts presented at DDW (5/2025):
 - 1) Building IBD registry and predicting patients with IBD
 - 2) Cardiovascular outcomes in IBD patients
 - Enrollment in prospective clinical trials

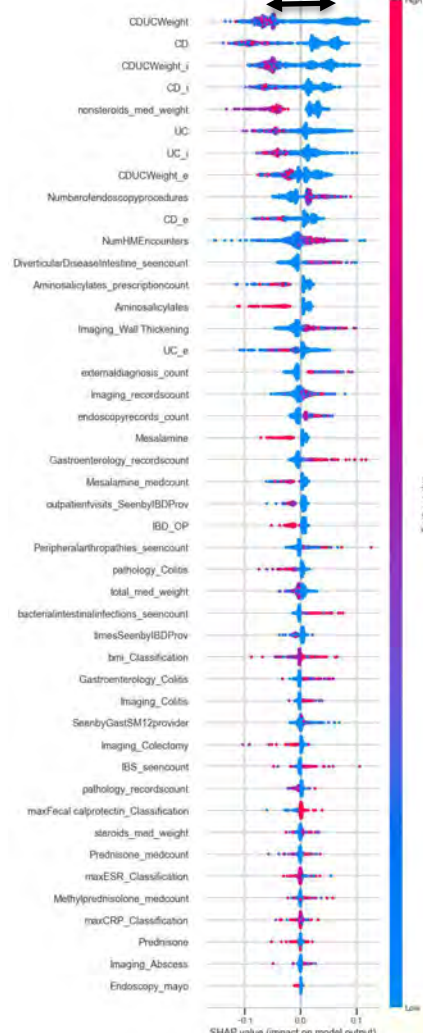
Random Forest Selected Features Contributions to CD Prediction



Random Forest Selected Features Contributions to UC Prediction

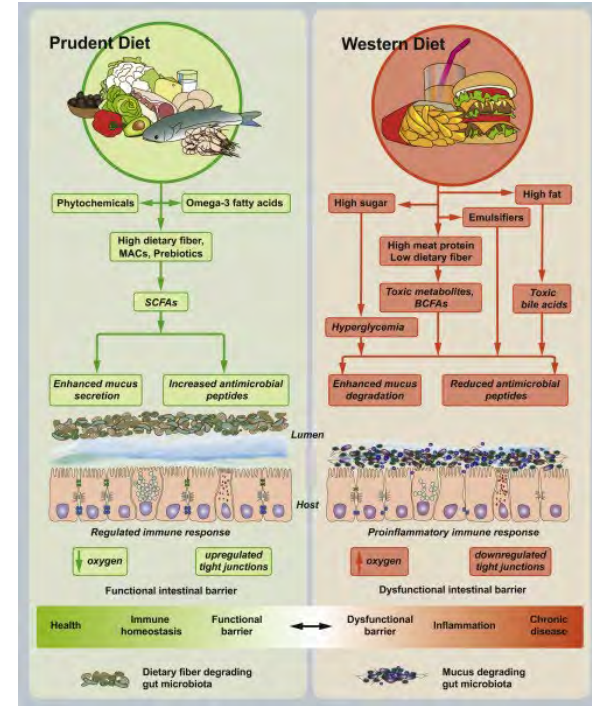


Random Forest Selected Features Contributions to No IBD Prediction



Diet and its impact on development of IBD

- Sugar-sweetened beverages ↑ and vegetables ↓ alter risk of IBD (Guo et al, Gut 2024)
- Sugar, fat, red meat, western diet ↑ the risk of IBD
- Fruits, vegetables, and fish ↓ the risk of IBD
- Dietary interventions show favorable outcomes in IBD



Fondren Inflammation Seed Award 2024

PI: Christopher Fan, MD

- Patients with mild – moderate ulcerative colitis
 - Dietary intervention:
 - Western diet
 - Plant Based Omega 3 diet
 - Mediterranean diet
 - Followed by:
 - Food Dietary Health Questionnaire
 - Shotgun stool metagenomics and metabolomics
 - Serum/plasma
 - Food sequencing (identify what patients are consuming)
 - Intestinal US to follow-up inflammation
- Follow-up at 0, 3, 6, 12 weeks

Personalized Treatment

- Goal: Identify biomarkers for disease
 - Severity
 - Responders to medications
 - anti-TNF α
 - $\alpha 4\beta 7$
 - JAK/STAT
 - IL-12/IL-23
 - S1P
 - At failure, determination of next biologic agent for treatment of disease
 - Identify adjuvant therapy to improve outcomes in patients with IBD

Future interventions



Using machine learning to predict outcomes



Dietary interventions as adjuvants to medical drug therapy



Creating conditions that promote healthy bacteria (pre-biotics)



Fecal microbiota transplantation of identified bacterial consortium

Our team

Houston Methodist:

Underwood Center for Digestive Health

Eamonn Quigley, MD

Fondren Inflammatory Bowel Disease Program

Bincy Abraham, MD

Malcolm Irani, MD

Amanda Wilhite, PA

Kenda Morris, NP

Data analysts: Pooja Pasupuleti and Fadi Shehadeh

Research Fellows: Oscar Noble, MD, Ana Paola Islas-Guerra, MD, Jesus Paez Mayorga, MD

Research Coordinators: Bobby Nguyen, Jonathan Mejia

Biorepository Core: Nathan Garcia

Immunology: Shu-Hsia Chen, PhD, Junhua Mai, PhD, Junjun Zheng, PhD

Infectious Disease: Cesar Arias, MD, PhD, MSc, Mohammed Jamal, PhD

Dr. Mary and Ron Neal Cancer Center

Collaborators/Mentors at MD Anderson: Robert Jenq, PhD, Yinghong Wang, MD, PhD, Pablo Okhuysen, MD

Foundational Support



Fondren Foundation for establishing the *Fondren Inflammation Collaborative*

David and Lynda Underwood for establishing the *Lynda K. and David M. Underwood Center for Digestive Health*

Goals:

- Dedicated to the delivery of integrated care across specialties
- Devoted to the education and training of health care practitioners, students, patients and their families
- Committed to clinical and translational research

HOUSTON
Methodist®

UNDERWOOD CENTER
FOR DIGESTIVE HEALTH

Setting a New Standard in IBD Care

Guiding Young People Through the Pediatric-to-Adult Transition

Bincy Abraham, MD

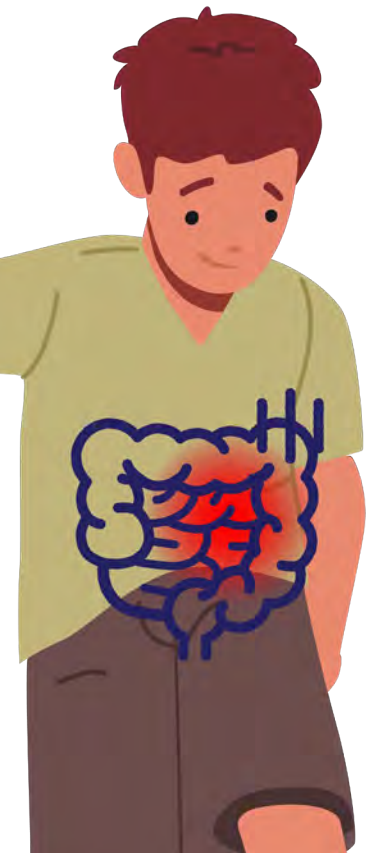
Director, Underwood Center—Fondren Inflammatory Bowel Disease Program

Fondren Distinguished Professor in Inflammatory Bowel Disease

March 26, 2026



WHERE IT ALL STARTS



- Up to 25% of IBD patients are diagnosed before age 18 (pediatric onset)
- 15% are diagnosed before age 6 (very early onset)
- **Rapid rise** of 133% in pediatric cases from 2007 to 2016

IBD diagnosed in childhood can be more extensive and severe

IMPACTS ON CHILDREN

PHYSICAL

- Pain
- Malnutrition
- Growth impairment
- Pubertal delay
- Increased risk of infection and cancer



PSYCHOSOCIAL

- Family
- School
- Work
- Increased anxiety and depression
- Psychology of body image

AS YOUNG PEOPLE GROW

Adolescents and Young Adults Face Unique Challenges

- Move from dependence to growing independence, changing support systems
- Experience major biological, familial and psychosocial changes that can challenge health behavior routines and impact health



Challenges with medication adherence

Diet and nutrition concerns

Anxiety and depression

Risky behaviors

Social stigma

Competing demands for time and attention

APPROPRIATE TRANSITION

Gap Between Pediatric and Adult Medical Care Jeopardizes Health

IBD CARE

PEDIATRIC

- Growth monitoring
- Pubertal delays
- Nutritional focus
- School
- Access to psychosocial and behavioral healthcare

IBD CARE

ADULT

- Cancer screening
- Comorbidities: hypertension, thrombosis risks
- Smoking, alcohol
- Work issues
- Pregnancy
- Risks to children

LOST IN TRANSITION

Gap Between Pediatric and Adult Medical Care Jeopardizes Health

PEDIATRIC
CARE

HOUSTON
Methodist
UNDERWOOD CENTER
FOR DIGESTIVE HEALTH

30-40%
of patients lost
in transition

ADULT
CARE


Texas Children's
Hospital

LOST IN TRANSITION

Gap Between Pediatric and Adult Medical Care Jeopardizes Health

TEXAS CHILDREN'S & HOUSTON METHODIST

PEDIATRIC
CARE

ADULT
CARE

THE FONDREN IBD TRANSITION PROGRAM

Our Vision

To create a first-of-its-kind IBD program that redefines the standard of care for patients in the shift from pediatric to adult care, enhances understanding of the disease across generations, and ultimately transforms IBD treatment and care nationwide.



Improve patient outcomes through multidimensional, developmentally appropriate transition care that emphasizes mental/behavioral health



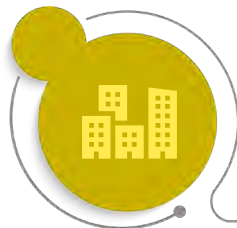
Train the next generation of IBD transition specialists in medical and psychological care



Educate patients, families, physicians and medical staff and the community in medical and psychological care

TURNING THE VISION TO ACTION

Replicable | Scalable | Sustainable



Create the Infrastructure

Establish transition structure, protocols and mechanisms for collaboration



Educate Patients and Families

Develop cobranded Texas Children's and Underwood educational resources for patients and families



Build the Teams

Fondren IBD Transition Teams at Texas Children's and Houston Methodist Underwood Center



Establish IBD Transition Fellowship Program

Train the next generation of IBD Transition specialists in gastroenterology and psychology



Launch the Program

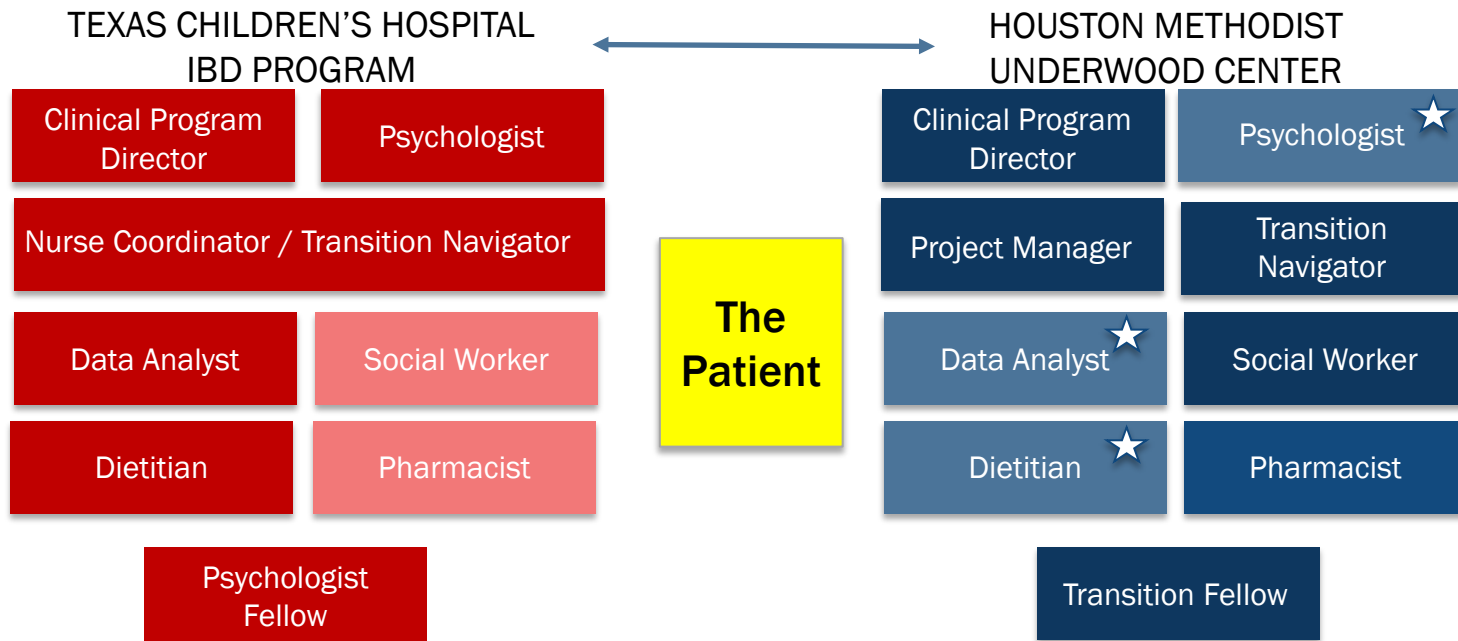
Teams at Texas Children's and Underwood Center



Analyze and Assess Impact

Collect data to monitor effectiveness and impact

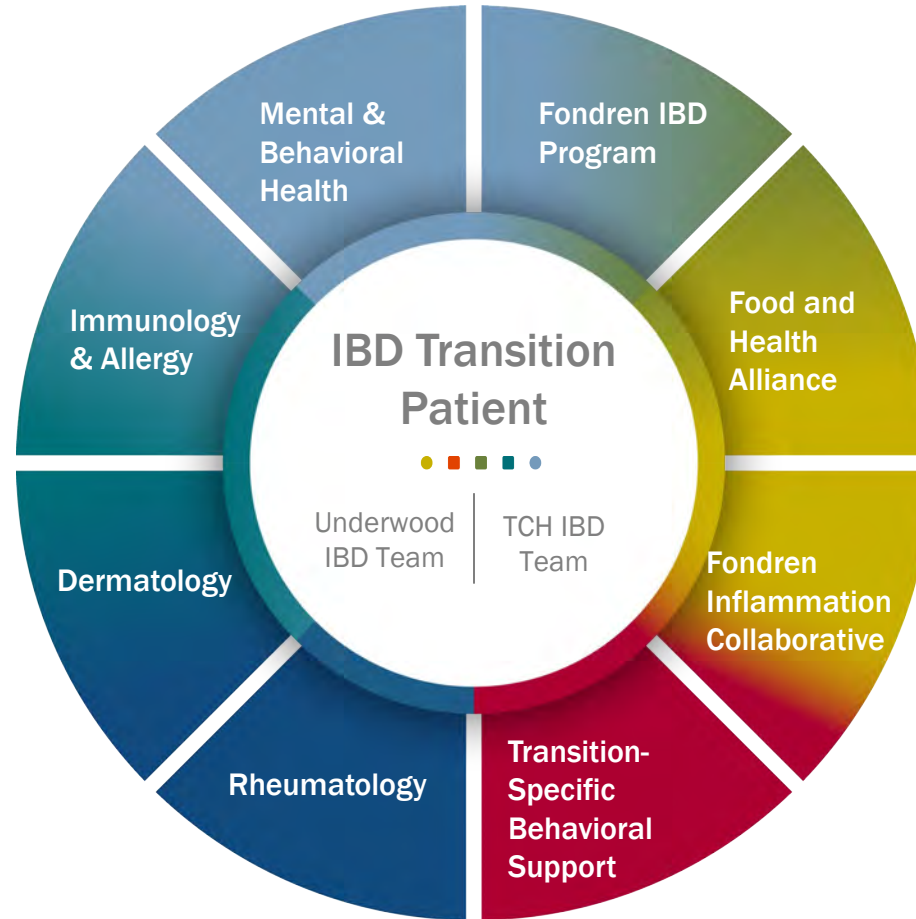
THE PARTNERSHIP



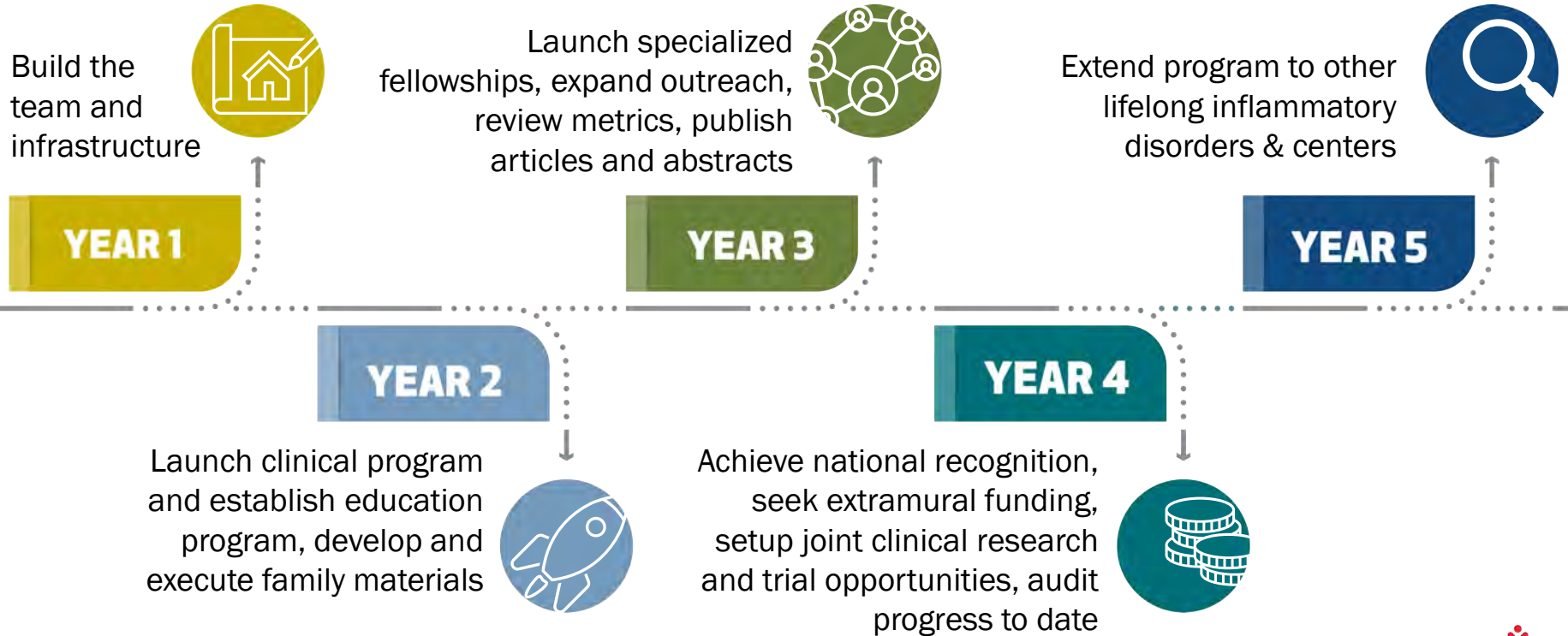
- Position needs funding
- Position currently filled

- Position needs funding
- Position currently filled
- Newly recruited

MAXIMIZING SYNERGIES



TIMELINE AND DELIVERABLES



IMPACTS AND METRICS

Data Collection Will Be Critical

TRAINING AND EDUCATIONAL MILESTONES

- Transition curricula for various members of the care team
- Transition Fellowship programs for Pediatric Psychologists and Adult GI Physicians specializing in Transition Care in IBD
- Educational materials and supportive resources to promote successful transition for patients, families

CLINICAL IMPACTS

- Number of hospitalizations, ER visits and surgeries
- Disease activity/flare
- Absence from school/college/work
- Engagement in IBD self-management behaviors
- Program impact and patient experience
- Quality of life using validated survey instruments
- Replicating the model in patients with celiac disease and other GI conditions

REPUTATIONAL

- Becoming known as the No. 1 center for transitional IBD care
- Recruit top talent for ongoing training programs to build pipeline of specialty trained physicians and psychologists for this population
- Attract additional philanthropic and research funding sources to sustain program

TOGETHER, WE WILL **CHANGE** LIVES BY...

Providing the developmentally appropriate structure, expertise and understanding missing in IBD patients' journeys, helping to ensure consistent and high-quality lifelong management of their IBD symptoms.

Fundamentally changing the standard of care for patient transition and serve as a nationally recognized model for others.

HOUSTON
Methodist[®]
UNDERWOOD CENTER
FOR DIGESTIVE HEALTH



Houston Methodist Update

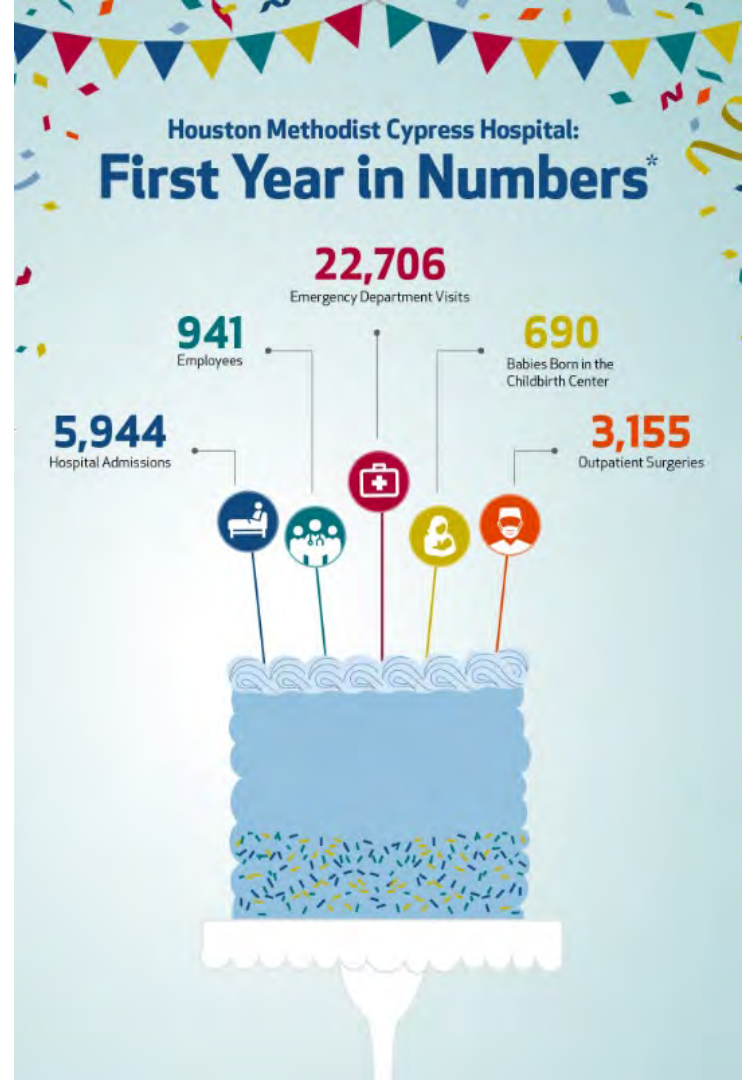
Marc L. Boom, M.D.

March 26, 2026

HMWB Celebrates 25th Anniversary



Houston Methodist Cypress Celebrates One Year of Service to the Community



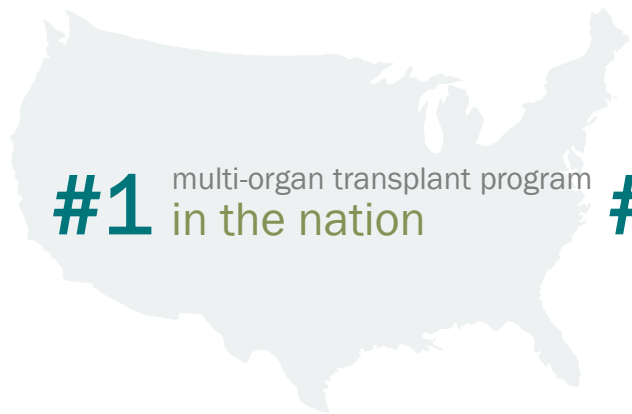
Baby Tatum Turns One!



2025 Houston Methodist Transplant Statistics

838
transplants

63,086
clinic visits



#6 transplant program in the nation



329 KIDNEY TRANSPLANTS
#2 kidney program in the **REGION**
#14 kidney program in the **NATION**
#2 living donor program in the **REGION**
#4 living donor program in the **NATION**



338 LIVER TRANSPLANTS
#1 liver program in the **REGION**
#1 liver program in the **NATION**



83 LUNG TRANSPLANTS
#2 lung program in the **REGION**
#12 lung program in the **NATION**



73 HEART TRANSPLANTS
#1 heart program in the **REGION**
#15 heart program in the **NATION**



11 Kidney-Pancreas and Pancreas Transplants
#1 pancreas program in the **REGION**
#1 kidney-pancreas program in the **REGION**
#10 pancreas program in the **NATION**



4 HEART-LUNG TRANSPLANTS
#1 heart-lung program in the **REGION**
#3 heart-lung program in the **NATION**

HMH Achieved a 6th Magnet Redesignation and Received Recognition with Distinction



HM Baytown Achieved a 3rd Magnet Redesignation and Received Recognition with Distinction



Awards & Accolades



Houston Methodist Hospital Named One of
'World's Best Specialized Hospitals 2026' by
Newsweek

Houston Methodist Ranked Among 'America's Most Innovative Companies' by *Fortune*



Awards & Accolades



#9

OVERALL RANKING

Only health care organization in the overall top 10

#1

HEALTHCARE INDUSTRY RANKING

Only health system to rank in the top 5

Awards & Accolades



Houston Methodist Ranks No. 10 on Forbes' '2026 America's Best Large Employers' List

Awards & Accolades

Dr. Shlomit Schaal Named 2026 Press Ganey Physician of the Year



Mayo Clinic's HealthLocator: A Public, Digital Tool for Navigating Quality Care Choice

HealthLocator: A Public, Digital Tool for Navigating Quality Care Choices

Authors: Subashnie Devkaran, PhD, FACHE, MScHM, Benjamin D. Pollock, PhD, MSPH , Daniel S. Uhl, MPH, Gianrico Farrugia, MD, and Sean C. Dowdy, MD, FACS, FACOG [Author Info & Affiliations](#)

Published October 30, 2025 | NEJM Catal Innov Care Deliv 2025;6(12) | DOI: 10.1056/CAT.25.0296

VOL. 6 NO. 12 | Copyright © 2025



Abstract

In this article, the authors discuss the creation of HealthLocator, a public, digital platform designed to address the confusion and inconsistencies between hospital rating systems. HealthLocator aims to empower patients with transparent, data-driven insights on more than 5,000 U.S. hospitals, helping them make informed decisions based on reliable metrics. Developed by the Mayo Clinic's Kern Center, HealthLocator integrates three core domains — quality outcomes, patient experience, and patient safety — into a single composite score. These domains draw from publicly available U.S. Centers for Medicare & Medicaid Services (CMS) and Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) data, spanning measures of readmissions, mortality, timeliness of care, patient experience, and hospital-acquired conditions, subsequently transformed into percentiles to more clearly present and interpret performance. An unique complementary feature is the reliable excellence indicator, which identifies top-tier hospitals consistently scoring highly across all CMS measures through robust simulations. In addition, HealthLocator includes high-volume and high-6-month-survival indicators for surgeries and specialized care, using CMS claims data. The novel 6-month mortality model adjusts for patient risk while avoiding the potential for methodological manipulation through inappropriate use of observation stays that are excluded from mortality measurement in other rating and ranking systems. The Mayo Clinic plans to continually refine HealthLocator based on user feedback, with future updates focusing on personalization, outpatient and long-term care quality measures, expanded data sources, and broader stakeholder input via an external advisory board.

HealthLocator Houston Rankings

Houston Methodist Hospital

Houston, TX

↑ In the top 3%



Reliable Excellence Indicator

Only about 250 hospitals receive this distinction. You can rely on these hospitals to provide high-quality care, again and again.

Rank	Hospital	Avg. Score	Percentile
1	Houston Methodist Baytown	90	99 th
2	Houston Methodist Clear Lake	90	99 th
3	Houston Methodist The Woodlands	90	99 th
4	Houston Methodist Willowbrook	86	99 th
5	Houston Methodist Sugar Land	84	98 th
6	Houston Methodist Hospital	82	97 th
7	Houston Methodist West	82	97 th
8	St. Luke's at The Vintage	68	88 th
9	Memorial Hermann – Katy	58	74 th
10	St. Luke's Patients Med Ctr	56	72 nd
14	Memorial Hermann – TMC	49	60 th
25	Baylor St. Luke's – TMC	37	36 th

Houston Methodist Cinco Ranch Comprehensive Care Center Opens to Patients



Leadership Announcement



Wayne Voss, senior vice president and CEO
of Houston Methodist West Hospital,
will retire in April.

Leadership Announcement



Carl Little, senior vice president and CEO of Houston Methodist Clear Lake Hospital, will be the next CEO of Houston Methodist West Hospital following Wayne Voss's retirement.

Neal Cancer Center Director

NATIONAL & INTERNATIONAL APPOINTMENTS

- Elected Member, NCI Task Force Steering Committee for Ovarian Cancer
- NRG Oncology Committee Member (Experimental Medicine, Developmental Therapeutics, Ovarian Cancer)
- Chair, Gynecologic Oncology Committee, Hoosier Cancer Research Network

AWARDS & RECOGNITION

- Diana Princess of Wales Professorship, Lurie Cancer Center
- Senior Clinician Investigator Award, U.S. Department of Veterans Affairs
- Harry Long Transdisciplinary Award, Society of Gynecologic Oncology
- CPRIT Scholar Award, \$4M Recruitment Grant

Daniela Matei, MD



HOUSTON
Methodist[®]
LEADING MEDICINE

THANK YOU FOR ATTENDING OUR **TOWN HALL CONVERSATION** WITH DR. MARC BOOM

For more information about Houston Methodist Lynda K. and David M.
Underwood Center for Digestive Health, please contact
foundation@houstonmethodist.org

HOUSTON
MethodistSM
LEADING MEDICINE

